

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P858817

Luminaire Tested: **LX4C05D010 EX4C059035 4LBSWNH**

Issue Date: 2/18/2022



**Test Information**

Test Method: LM-79-08  
Report Number: P858817  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LX4C05D010 EX4C059035 4LBSWNH  
Description: 4 INCH 500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS AND 4LCSW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

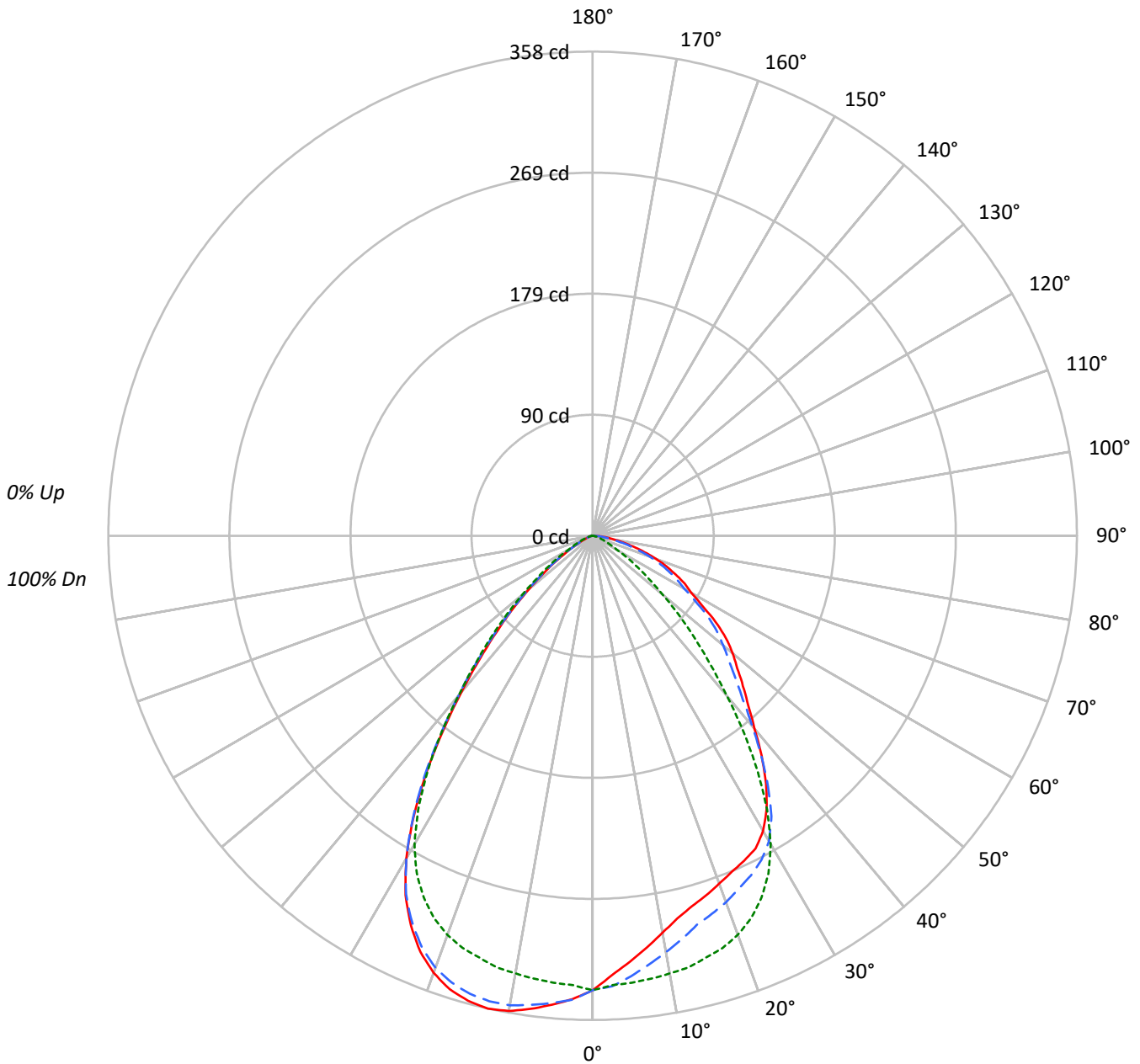
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 589.0 lumens  
Efficiency: N/A  
Efficacy: 81.8 lumens/watt  
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 7.2  
Input Voltage (V):  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				50				30				10			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70	70	70	70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62	62	62	62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56	56	56	56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46	46	46	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42	42	42	42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	41279	41279	41279
5°	38982	40906	42929
10°	37163	40992	44510
15°	36070	41081	45266
20°	35783	41039	44948
25°	35922	40029	43079
30°	35748	37351	39068
35°	33505	31885	32215
40°	29862	24730	24168
45°	27312	18434	17305
50°	25821	12920	11678
55°	23754	8717	7325
60°	20738	5111	4030
65°	19651	3285	2267
70°	17888	2335	1401
75°	14810	1661	1044
80°	11603	920	637
85°	10431	564	0



TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	31.7	5.4
10°-20°	91.1	15.5
20°-30°	135.0	22.9
30°-40°	135.2	23.0
40°-50°	94.5	16.0
50°-60°	56.2	9.5
60°-70°	29.3	5.0
70°-80°	13.0	2.2
80°-90°	2.8	0.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	257.8	43.8
0°-40°	393.0	66.7
0°-60°	543.8	92.3
0°-90°	589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	589.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	336	336	336	336	336	
5°	316	327	332	347	348	30
15°	284	298	323	351	356	80
25°	265	277	295	316	318	122
35°	223	226	213	216	215	139
45°	157	149	106	103	100	122
55°	111	104	41	36	34	98
65°	68	62	11	8	8	67
75°	31	27	4	2	2	34
85°	7	6	0	0	0	8
90°	0	0	0	0	0	



TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0
2.5°	325.2	329.1	325.2	326.5	331.7	326.9	329.5	329.5	328.2	331.2	333.4
5°	316.1	320.0	316.1	317.8	323.5	318.7	321.7	320.9	321.3	323.9	326.9
7.5°	307.0	310.0	306.6	308.7	313.9	310.0	312.6	312.6	313.1	317.0	319.6
10°	297.9	300.5	297.9	299.6	305.3	301.8	303.5	304.0	305.3	308.7	312.6
12.5°	289.7	291.8	289.3	291.8	296.6	293.1	295.3	295.7	297.0	300.9	305.3
15°	283.6	285.8	283.2	285.3	289.7	287.1	288.8	289.7	290.5	294.0	297.9
17.5°	278.9	280.6	278.4	281.0	284.5	281.5	284.1	284.1	285.3	288.8	293.1
20°	273.7	275.4	273.7	275.8	279.7	277.1	279.3	279.3	280.6	284.5	288.4
22.5°	268.9	269.8	268.9	270.6	274.5	272.4	273.7	274.1	275.4	278.9	282.3
25°	265.0	266.7	265.9	267.6	270.2	268.0	269.3	269.8	271.1	274.1	277.1
27.5°	260.7	261.5	260.7	262.8	265.0	263.3	264.6	264.1	265.0	267.6	270.2
30°	252.0	252.9	252.9	254.2	255.9	255.1	256.3	255.1	255.9	258.1	260.7
32.5°	239.5	239.9	240.3	241.6	242.9	241.6	242.5	242.5	242.5	244.2	246.0
35°	223.4	224.3	223.9	224.7	226.0	225.6	225.6	225.2	224.3	225.2	226.0
37.5°	205.2	203.9	203.9	205.2	206.1	204.4	205.2	204.4	204.4	204.8	204.8
40°	186.2	184.9	186.2	186.6	187.1	186.2	185.8	184.9	183.6	184.0	183.2
42.5°	170.2	169.3	169.7	169.7	170.2	169.3	169.7	168.0	166.7	165.8	164.5
45°	157.2	155.9	157.2	156.3	156.3	155.9	155.4	154.6	152.9	151.6	149.4
47.5°	145.1	145.1	145.5	145.5	145.5	144.6	144.6	142.9	141.2	139.4	136.4
50°	135.1	134.2	136.0	136.0	134.7	134.2	134.7	132.5	131.2	129.0	126.0
52.5°	124.3	124.3	124.7	124.7	124.3	123.4	123.8	122.1	120.8	118.6	115.6
55°	110.9	110.0	111.3	111.3	110.9	110.4	110.9	109.5	108.3	106.5	103.9
57.5°	95.7	95.3	96.1	96.6	95.7	95.7	96.1	94.8	94.4	92.7	90.1
60°	84.4	84.0	84.9	85.3	84.4	84.4	84.4	82.7	81.8	80.1	78.4
62.5°	76.6	76.2	77.1	76.6	76.2	75.8	76.2	74.5	73.6	71.9	70.2
65°	67.6	68.0	68.4	68.4	68.0	67.6	67.6	66.7	65.8	64.1	61.9
67.5°	58.9	58.9	59.3	59.7	59.3	59.3	59.3	58.0	57.2	55.9	53.3
70°	49.8	49.4	50.7	50.7	49.8	50.2	49.8	49.4	48.5	46.8	44.6
72.5°	40.3	40.3	40.7	40.7	40.3	40.3	40.3	39.8	38.5	37.7	35.5
75°	31.2	31.2	31.6	32.0	31.2	31.2	31.6	30.7	29.9	28.6	27.3
77.5°	23.4	22.9	23.4	23.4	22.9	22.9	22.9	22.5	22.1	20.8	19.5
80°	16.4	16.0	16.4	16.4	16.4	16.0	16.0	15.6	15.6	14.7	13.4
82.5°	11.3	10.8	11.3	11.3	11.3	10.8	10.8	10.8	10.4	10.0	9.1
85°	7.4	6.9	6.9	7.4	6.9	6.9	6.9	6.9	6.5	6.1	5.6
87.5°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.0	3.0	3.0	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0
2.5°	331.7	330.8	333.4	332.6	333.0	330.8	334.3	332.6	334.7	332.6	336.9
5°	326.1	325.2	329.1	328.6	329.1	327.4	331.2	330.8	333.4	331.7	336.4
7.5°	320.0	319.1	323.5	323.9	324.8	323.0	328.2	328.2	330.8	330.4	335.6
10°	313.1	313.5	317.8	318.7	320.4	319.6	324.3	325.6	329.1	328.6	335.2
12.5°	306.6	306.6	312.2	313.9	315.2	314.8	320.4	322.2	326.1	326.9	333.0
15°	300.1	300.5	305.7	308.3	310.0	309.6	315.7	317.8	322.6	323.0	330.4
17.5°	294.9	294.4	300.1	302.2	304.8	304.4	310.9	313.5	318.3	319.6	326.5
20°	290.5	290.1	295.3	297.9	299.6	299.2	305.7	308.7	313.1	313.9	320.9
22.5°	285.3	284.5	289.7	291.8	293.6	293.1	298.8	300.9	305.3	306.1	312.6
25°	279.3	278.4	283.2	284.5	285.8	284.9	289.7	291.0	294.4	295.3	301.8
27.5°	272.4	270.2	274.1	274.1	275.0	273.7	277.1	278.4	281.5	281.5	287.5
30°	261.5	258.5	260.7	260.2	260.7	258.9	261.1	261.5	263.7	263.3	267.6
32.5°	246.4	242.0	243.4	242.0	240.8	238.2	240.8	239.9	241.6	239.9	243.8
35°	225.6	221.3	220.8	219.1	217.8	215.6	215.6	213.5	213.9	212.6	215.2
37.5°	203.1	197.5	196.6	193.1	191.0	188.4	188.4	186.6	184.5	183.6	185.8
40°	181.0	174.9	172.8	167.1	165.0	162.4	160.6	158.5	157.6	154.2	155.9
42.5°	161.9	155.4	150.7	144.6	142.5	138.6	136.0	133.4	132.1	128.2	129.9
45°	145.9	138.1	132.9	125.1	122.1	117.8	113.9	110.9	107.8	106.1	105.2
47.5°	132.5	124.3	117.3	108.7	103.9	100.0	94.8	91.8	87.9	85.7	84.4
50°	121.2	112.1	104.4	94.4	89.6	85.3	79.2	74.5	71.0	67.6	66.7
52.5°	111.3	101.8	93.1	81.8	76.2	71.0	64.5	59.3	56.3	52.4	52.0
55°	99.6	91.4	81.8	70.2	64.5	59.3	52.4	47.2	43.3	40.7	39.8
57.5°	87.0	79.2	70.2	58.5	52.8	47.2	40.7	35.9	32.5	30.3	29.9
60°	75.3	68.0	59.3	47.6	42.0	37.2	30.3	25.5	22.5	20.8	19.9
62.5°	66.7	59.7	51.5	40.7	35.5	30.7	24.3	19.9	17.3	15.6	14.7
65°	58.5	51.5	44.2	34.2	29.9	25.5	19.5	15.6	13.0	11.3	10.4
67.5°	49.8	43.7	36.8	28.6	24.3	20.8	15.6	12.1	10.0	8.7	7.8
70°	41.1	35.5	29.9	22.9	19.9	16.4	12.1	9.5	7.4	6.5	5.6
72.5°	32.5	28.1	23.4	17.8	15.2	13.0	9.5	6.9	5.6	4.8	3.9
75°	24.3	21.2	17.3	13.4	11.3	9.5	6.9	5.2	4.3	3.5	3.0
77.5°	17.3	14.7	12.1	9.1	8.2	6.9	4.8	3.9	3.0	2.2	1.7
80°	11.7	10.4	8.2	6.5	5.2	4.8	3.5	2.6	1.7	1.3	1.3
82.5°	7.8	6.5	5.2	3.9	3.5	3.0	2.2	1.7	1.3	0.9	0.9
85°	4.8	3.9	3.0	2.2	2.2	1.7	1.3	0.9	0.4	0.4	0.4
87.5°	2.2	1.7	1.3	0.9	0.9	0.4	0.4	0.4	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0
2.5°	340.3	337.7	336.0	338.2	339.0	337.7	339.0	341.2	343.4	343.8	337.7
5°	340.8	338.2	337.3	339.9	340.3	339.9	341.2	344.2	346.8	347.7	341.7
7.5°	340.8	339.0	338.6	341.7	342.1	341.7	343.8	347.3	349.9	351.6	345.5
10°	339.9	339.0	339.5	342.1	342.9	342.9	346.0	349.9	352.5	354.2	348.1
12.5°	338.6	338.6	338.6	341.7	342.5	342.9	345.5	350.7	352.5	355.1	349.0
15°	336.4	336.4	336.4	339.5	340.8	340.8	343.8	348.6	350.7	353.3	347.3
17.5°	332.6	332.6	333.0	335.6	336.9	336.9	339.9	345.1	346.4	349.4	343.4
20°	326.9	326.9	327.4	330.0	331.2	330.4	334.3	338.6	339.9	342.5	336.4
22.5°	318.7	318.7	318.7	321.3	322.2	321.7	325.6	329.5	329.5	333.0	326.5
25°	306.6	307.4	306.6	309.2	310.0	309.6	313.1	316.5	315.7	319.6	313.1
27.5°	291.8	291.4	291.4	293.6	293.6	293.1	295.7	299.6	298.8	301.4	295.3
30°	271.5	272.8	270.6	273.7	272.4	271.5	273.2	276.7	275.4	277.6	272.8
32.5°	248.1	246.4	246.4	246.4	247.2	245.1	246.8	248.5	247.2	249.4	244.2
35°	217.4	217.8	216.5	216.9	217.4	214.8	216.5	218.2	216.5	217.8	213.0
37.5°	186.6	187.1	184.0	185.8	184.0	183.2	184.9	185.8	184.0	185.3	180.1
40°	155.9	155.0	154.6	154.6	155.0	152.9	154.2	155.4	154.2	155.0	150.3
42.5°	129.0	128.6	127.7	128.2	126.9	126.4	126.9	128.2	126.9	127.7	124.3
45°	105.6	104.8	103.5	103.9	103.9	101.8	103.0	103.9	102.6	103.0	100.0
47.5°	84.0	82.7	82.7	82.3	82.3	81.4	82.7	82.3	81.0	81.8	78.8
50°	65.4	64.5	64.5	64.5	64.5	63.2	63.7	64.5	63.2	63.2	61.5
52.5°	51.1	49.8	48.9	48.9	48.9	48.5	48.5	48.9	47.6	47.6	47.2
55°	38.5	38.1	36.8	36.8	36.8	35.5	35.9	35.9	35.5	35.5	34.2
57.5°	28.6	27.3	26.4	26.4	25.5	25.5	25.1	25.5	24.7	24.7	23.8
60°	19.0	18.2	17.8	17.3	17.3	16.9	17.3	16.9	16.9	16.4	16.0
62.5°	13.9	13.0	12.1	12.1	12.1	11.7	11.7	11.7	11.7	11.7	11.3
65°	10.0	9.1	9.1	8.7	8.7	8.2	8.2	8.2	8.2	8.2	7.8
67.5°	6.9	6.5	6.1	6.1	6.1	6.1	6.1	6.1	5.6	5.6	5.6
70°	5.2	4.8	4.3	4.3	4.3	4.3	4.3	3.9	4.3	4.3	3.9
72.5°	3.5	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	2.6	2.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.7	1.7	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P858817

CATALOG NUMBER: LX4C05D010 EX4C059035 4LBSWNH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	336.0	336.0	336.0	336.0	336.0	336.0	336.0	336.0
2.5°	344.2	343.8	342.9	344.2	340.8	339.5	339.0	342.9
5°	349.0	348.1	348.1	349.4	345.5	344.7	343.8	348.1
7.5°	353.3	352.5	352.5	353.8	350.3	349.4	348.6	352.9
10°	355.9	355.9	355.9	356.8	353.8	352.9	352.5	356.8
12.5°	357.2	357.2	356.8	358.5	354.6	354.6	353.8	358.1
15°	355.5	355.5	355.5	356.8	353.3	352.5	352.5	355.9
17.5°	351.2	351.2	350.7	352.0	348.1	348.1	347.7	351.6
20°	344.7	344.7	343.8	345.5	341.7	340.3	339.9	343.8
22.5°	334.3	333.8	333.4	334.3	330.8	330.0	329.5	333.0
25°	320.9	320.4	319.6	320.4	316.5	315.2	315.2	317.8
27.5°	301.8	301.8	300.5	301.8	297.5	297.0	296.6	299.6
30°	278.4	276.7	275.8	277.6	273.2	273.2	272.4	275.4
32.5°	249.4	247.7	247.2	248.1	244.2	242.9	244.6	246.4
35°	216.1	216.5	214.8	214.8	211.3	211.7	212.2	214.8
37.5°	184.0	183.2	182.7	183.2	180.6	179.7	178.8	181.4
40°	154.2	152.0	151.6	151.6	149.4	149.0	149.4	150.7
42.5°	126.0	125.6	123.8	124.7	122.5	123.4	123.0	123.0
45°	101.8	102.2	100.5	101.8	100.0	98.7	98.7	99.6
47.5°	80.5	80.5	80.1	80.1	78.8	79.2	78.4	79.7
50°	62.3	62.3	61.5	61.9	61.1	61.1	60.6	61.1
52.5°	47.6	47.2	47.2	46.8	45.9	46.3	46.8	45.9
55°	34.6	35.1	34.2	34.6	33.8	34.2	33.8	34.2
57.5°	23.8	24.3	23.4	24.3	23.4	23.8	23.4	23.4
60°	16.4	16.4	16.0	16.4	16.0	16.0	15.6	16.4
62.5°	11.3	11.3	11.3	11.3	11.3	10.8	11.3	11.3
65°	8.2	7.8	7.8	7.8	7.8	7.8	7.8	7.8
67.5°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
70°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.0	0.4	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)